

Information and Communication Technologies as Management Tool for Tourism Development in Nigeria: Challenges and Prospects

Ogechi Ivy Anyanwu¹, Joy Nneka Uchenye Ejikeme^{2*}, Nwando Helen Anunobi³

Abstract

Information and Communication Technologies (ICTs) has reshaped private and societal activities in general by turning the world into a global village. ICTs facilitate potential tourists' access to tourism products information from anywhere any time while tourism enterprises can equally reach the targeted customers across the globe with the aid of computers, web technologies etc. Almost every tourism products can be sold online without the consumer necessarily visiting the place before making any choice. Booking of flights and hotel reservations can be done online through e-mail, telephone calls and other internet services thereby eliminating inconveniences, waste of time and resources, etc. that characterise the analogue system. Consequently, ICTs play a major role in tourism, travel and hospitality industry. This study explores the challenges and prospects of its use as a management tool for tourism development, revenue generation, minimization of cost and reaching the customers in Nigeria. Primarily it seeks to identify its limitations in enhancing more accessibility, visibility of information, availability of variety of products and satisfaction in the Nigeria's tourism industry with a view to explore possibility of their overcome. In pursuit of this goal, a survey of existing and accessible literature in secondary/archival sources is adopted while the data generated is analysed with the aid of content analysis. The results of the analysis reveal that poor availability, dissemination and maintenance of ICT facilities, high costs of ICT facilities, poor network coverage/connections, lack of ICT skills and limited integration of ICTs in tourism industry, and epileptic power supply are the major forces hindering the impact of ICTs on tourism industry development in Nigeria. This paper hereby recommends pro-ICTs development and integration policy in the tourism industry to ameliorate the observed hindrances.

Keywords: Communication; e-Tourism, ICTs; Integration; Tourism Development

¹Department of Archaeology and Tourism, University of Nigeria, Nsukka

²Joy Nneka Uchenye Ejikeme, Humanities Unit, School of General Studies, University of Nigeria, Nsukka

³Department of Archaeology and Tourism, University of Nigeria, Nsukka

I. INTRODUCTION

International tourism has continued to expand and diversify for over six decades now, rising from 277 million in 1980 to 528 million in 1995, and 983 million in 2011, and over 1.3 billion in 2017; and has continued to increase by 3.3% a year on average since 2010 (Bethapudi, 2013; World Tourism Organisation, 2018). This has been attributed to the positive influence of Information and Communication Technologies (ICTs) (Bethapudi, 2013). ICTs have proved highly effective in altering both processes, speed, connections, and reach across the globe particularly with the emergence of the World Wide Web and the internet. They created an e-community" where information are exchanged, products sold, services rendered, payments made, training/teaching delivered, and attitudes broadened (Al-Kassem & Nassuora, 2012; Cohen et al., 2014; Ficarelli et al., 2013). Thus, ICTs has positively altered administrative, production, and marketing process though moderated by the level of people's skills acquisition, the level of development and other environmental factors (George, 2011). It enhances the dissemination of information instantly to different locations irrespective of distance, and stimulates the buying and selling of goods and services online (e-commerce).

The role and contribution of ICTs to tourism development finds expression in its nature and products. Tourism products are none testable prior to purchase; rarely bought individually; geographically dispersed and diverse and require customers to travel in order to consume them; and the availability of alternative travel routes, transportation modes, time and lodging accommodations, make decisions on where and how to go difficult. Thus, prospective customers or tourists covering the whole spectrum of cultures and nations, professions, incomes, interests, knowledge, sophistication and needs require and depend on prior descriptions to help them take a decision and make actual (Go and Pine, 1995). Information generated and/or disseminated through ICTs is the only channel through which such can be experienced.

Therefore, ICTs have changed both sides of the market (i.e. demand and supply) in facilitatory and developmental manner. Modern technologies have introduced monumental changes in what tourism offers and tourism/tourists demand (Januszewska et al., 2015; Buhalis & O'Connor, 2005). Specifically, ICTs have led to the emergence of new types of tourist activities and experiences (Neuhofer et al., 2014). They are changing the needs of potential tourists and customers (Werthner & Ricci, 2004), enable fast, proxy, efficient and cost-effective services, and have led to the reorganization of tourism enterprises and greater investments. ICT has being applied in the virtualization (i.e. transfer of economic activities to digital communication platforms) in tourism market relations, financial settlements, customer service processes, and commercialisation of tourism products. Consequently it has brought complete managerial and procedural changes in tourism industry as well as other sectors of human endeavour (Apulu & Latham, 2011; Mihajlović & Krželj-Čolović, 2014). On this, lies the role of ICT as management tool in the tourism industry. It is innocuous to assert that their integration have tremendous positive contribution to the management and development of tourism enterprises and the tourism sector as a whole (Dickinson, Ghali, Cherrett, Speed, Davies & Norgate, 2012; Lamsfus, Xiang, Alzua-Sorzabal & Martin, 2013; Wang & Fesenmaier, 2013).

The changes and innovations orchestrated by ICT integration into tourism industry have given rise to new opportunities and new challenges equally (Aramendia-Muneta & Ollo-Lopez, 2013; Buhalis, 1998). Thus, this paper explores Nigeria's tourism industry experience on the role and impact of ICTs on its development with a view to extrapolate the major challenges or hindrances confronting the development of the industry in this digital era. Its specific focus is to identify these problems with a view to assess the prospects of tourism development in this ICT regime. As an opinionated paper, the study explores previous works on ICT and Tourism with particular reference to Nigeria, while content analysis was equally adopted in the process of analysis and interpretation of data.

II. CONCEPTUAL CLARIFICATIONS

Information and Communication Technologies (ICTs)

Information and Communication Technologies (ICTs) is a term whose wide usage since the 20th century connotes the existence and application of computers, accessories and the Internet (Unwin, 2009) in the communication industry. They are extended synonym for Information Technology (IT) and represent the application of information technology tools, supporting information management mechanisms and processes for storing, processing, retrieving and protecting information by individuals, groups, and corporate bodies. Thus, Opara and Onyije (2013) defined it as electronic networks – embodying complex hardware and software – linked by a vast array of technical protocols. In a more broader form, Weigel (2004, p. 15) define it as, "... the entire spectrum of technologies designed to access, process and transmit information in relation to text, sound, data and pictures". Sharing the same view, Apulu and Latham (2011, p. 4) define it as "any tool that facilitates communication process and transmits information and shares knowledge through electronic means."

Chandler and Munday (2011), Buhalis (2003), Mowshowitz (1999) share the view portrayed by Weigel. Their views imply that ICTs refer to the entire range of electronic tools and systems that facilitate the management of information, functions and processes as well as communication, which enable the users to achieve their mission and objectives. Thus, Januszewska et al. (2015, p. 43) noted that it "... represents the technology required for information processing and transfer: innovative tools which form an integrated system of software and networked equipment that facilitates data processing, information sharing, communication, searching and selecting from the existing range of products and services used for an organization's benefit". In all, ICT is an acronym for an integrated system of software and networked equipment required for data/information gathering, processing, storage, and transfer. For the purpose of our investigation in this study, ICTs refer to a set of technological equipment or tools that collect, process, store, and share information with each other for purposes of knowledge, making decisions and taking actions. This represents all forms of Cell Phone applications, Digital Cameras, Internet, Wireless (Wi-Fi and WiMAN), VOIP, GPS, GIS, Convergence (data, voice, media), Digital radio, computers, television, radio, magnetic disk/tape, optical disks i.e. DVD/CD, flash drive, Memory, microphone, camera, loudspeaker, telephone and cellular phones, satellite, CCTVs etc. (Shanker, 2008). However, in tourism, Eraqi (2014) and Teruel & Viñals (2012) identified computerised reservation systems, teleconferencing, videos, video brochures, management information systems, airline

electronic information systems, electronic funds transfer, digital telephone networks, smart cards, mobile communication, e-mail, and internet as the components of ICTs.

Tourism

The movement of people both as individuals and/or group to locations or destinations outside where they normally live and work for different reasons is generally termed tourism (Hristov, 2015; Tobora et al., 2014). The motive of such relocation, which is expected to last not more than one consecutive year, can be leisure, religion, business, sports, education, training, emissary, ceremony/celebration, or any other purpose (Undeme, 2010; Deighton, 1996). Irrespective of the reason or goal of the movement, there are two categories of tourism, viz: domestic and international tourism. It is domestic when it takes place within the national boundaries and international when it is a movement beyond the national boundaries. Tourism is the largest source of revenue and employment opportunities worldwide and therefore contributes to gross national product, national employment growth and regional development.

Weaver and Oppermann (2000) noted that tourism is made up of two components, namely: demand and supply factors that characterise any marketing system. Cooper (2004, p.76) defines demand as “a schedule of the amount of any product or service that people are willing and able to buy at each specific price in a set of possible prices during some specified period of time”. Therefore demand factors refer to potential tourists’ interests and needs in the course of their travels. Central to their interests and demand is that they want to experience something new and receive preferred services in expect high quality that should be commensurate the value of the money they paid.

The supply factors refer to the various entrepreneurial abilities of owners of attraction sites to respond or provide the needs and interests of the potential tourists. These include all attractions and activities made available to attract tourists such as parks, beach, marine, archaeological sites, historical places, arts and entertainment, crafts, traditional architectural sites, economic activities, traditional customs and ceremonies, etc. It means the provision of the key elements of the tourism industry and the maintenance, promotion and management of the tourism facilities and resources like telecommunication, accommodation, transportation, and tourism reception services such as travel agencies, tourist offices, hire companies and visitor managers.

In both aspects of tourism, the services of an intermediary known as travel agent are fundamental prior to ICT integration. The agent acts as tourist search and book service and an adviser who help to search for suitable products, compare products from different destinations, match customers with travel experiences, offer advice on the preferred destination, and when accepted, arrange for easy experience. The agent packages different travel components together and markets same as a single seamless product. Occasionally, they act as intermediaries, distributing information and brochures for tourism suppliers within their localities (O’Connor, 1999). Therefore, the primary roles of tourist agents are information exchange and facilitation of marketing process. Both the costs of promotional material, circulation of the materials, and the

services rendered by agents, booking or purchase of the products, and transportation make the orthodox management of tourism very costly. In the ICT era where tourists contact the supplier directly for products inquiry, comparism, and purchase, much lesser costs are expended only on ICTs, booking or purchase of the products, and transportation. This era even ensure that adjustments are made in response to emergencies on both sides of customers and enterprises because timely information flows in the opposite direction constantly without hindrance (Buhalis, 1998; Inkpen, 1998).

III. ICTs AND TOURISM INDUSTRY

The World Wide Web and Internet engendered the distribution of multimedia applications such as textual data, graphics, pictures, videos, and sounds, and have demonstrated unprecedented capabilities to find relevant tourism information relating to destinations and products (Alt & Klein, 2011). This tends to simplify the sophisticated nature of the tourism industry management. Therefore, ICT provides tourism industry with the platform to market wider, deeper and customers' oriented products at affordable cost without changing the quality of information delivered (Shanker, 2008; Buhalis & Licata, 2002). It provides new information distribution channels for tourism products thereby creating a new competitive business environment (Molz, 2012; Sigala &Chalkiti, 2014). It has radically revolutionised the operations, structures and strategies of tourist enterprises, introducing new innovations in their day-to-day operations (Hjalager, 2015; Baum, 2015).

The overall impact of ICT on the tourism industry is at two levels, namely: in two ways: it connects tourism enterprises and enables efficient management; and improves the production, distribution and sale of a complex web of tourism products (Buhalis, 2003). It has continued to redefine the organizational structure of tourism enterprises; facilitated the creation of tourism services, marketing activities, sales, tourists' notification and activities; and even the development of new channels of distribution and communication (Hadžić, 2004).

A considerable number of studies in exploring the impact of Information and Communication Technology in travel distribution (Law, Leung, & Buhalis, 2008; Buhalis & Molinaroli, 2003; Werthner & Klein, 1999) observed that ICTs ensures easy and direct access to information, simultaneous explosion of customers globally, and sharing of information (Paraskevas, 2005). The integration of technology into tourism transformed the nature of tourism products, processes, businesses, and competition, and enables young enterprises in the industry to develop new products, and engage in service innovations that propel them to greatness (Neuhofer et al., 2014; Aramendia-Muneta & Ollo-Lopez, 2013; Ficarelli et al., 2013; Bethapudi, 2013; Spencer et al., 2012; Mihajlović, 2012). These impactshave led to the prevalence of rivalry or competitionamong tourism industries; increased the bargaining power of potential tourists/consumers and suppliers, and eliminated the role of intermediaries (Berné, et al., 2015; Buhalis and Zoge, 2007). These have cumulatively orchestrated greater efficiency, customer satisfaction, and collaboration due to interconnectedness, global reach, shared interests and common goals particularly among consumers of tourism products (Spralls et al., 2011).

In the industry, ICT offered easy access to information, quick identification of customers' needs with potentials for value creation, and faster and wider contacts with potential clients for value capture (Werthner & Ricci, 2004; WTO, 1998) that enable the enterprise establish or raise a Dynamic Packaging Tool. This enables such enterprise to design new tourist services and products to meet clients' needs while it empowers the client with knowledge that lead to increased demands, which inevitably lead to services specification, modification and products modernisation. Tourism enterprises therefore are influenced by clients' knowledge and demands to create new offers of services and product, and reform existing ones (Aghaei et al., 2012). All these lead to improved service performance and quality, higher tourist satisfaction, enterprise development, and increased patronage and revenue (Ashari et al., 2014; Buhalis, 2003).

Specifically, Berné et al. (2015) and Buhalis (1998) noted that ICT stimulates efficient co-operation within the tourism industry, knowledge sharing about interesting places worth visiting among potential tourists, enabled customers to evaluate and compare accommodation and security facilities, helped managers to monitor changes in demands and patronage, speed up management procedures and created opportunities for preferences and choice at the disposal of both the enterprise and tourists. It provides equal opportunities for commercial activities and drives free and fair competition through its e-services outlets in the global markets (Stiakakis, Georgiadis, 2011). Buhalis (2003), Moutinho (2000), and The United Nations World Tourism Organization (UNWTO) (2015) observed this contribution of ICTs as playing a critical role in the increasing competitiveness of tourism organisations and destinations globally. This competitive performance is enhanced through networking, clustering and the formation of alliances (Braun, 2008).

Consequently, ICT has continued to serve as inevitable management tool for vast majority of hotels, resorts, travel agents, tour operators and tourism organisations (Bethapudi, 2013). It enables managers to provide travellers with access to reliable and accurate information, as well as to undertake reservations in a fraction of the time, cost and inconvenience that is involved in using more conventional methods (O'Connor, 2000; Mills and Law, 2004). In the United States for instance, 81% of tourists used the Internet to plan and search for travel information in 2012, while 82% of them used the Internet to look for a package arrangement that satisfies their taste (Kayani, 2014). Similarly, in five southern European countries, the Internet is the second most important instrument after friends and relations used by tourists to select their destination while over 53% of entire European tourists arrange for their holidays with the aid of the internet (Ficarelli et al., 2013). This culminates into customer-management relations and supply chain management, which facilitates product selection, ordering, fulfilment, tracking, payment, and reporting (The International Labour Office (ILO), 2010). Thus, ICTs link management to potential and actual customers directly thereby cutting off intermediaries and costs associated with their services and tricks (Mihajlović, 2012). It is therefore imperative that without information, the tourism industry will neither function effectively nor develop (see Sheldon, 1993).

From the above one can deduce that the managerial impact of ICT integration in tourism industry has been enormous. It increases the competitiveness and effective destination management (Petti & Passiante, 2011), reduces operating costs, shorten the time needed for the collection and analysis of tourism

data, increases the regularity and accuracy of data updating, increases the effectiveness of action enforcement through targeted promotional campaigns, provides additional revenues through training, production of ad hoc studies and statistics, consultancy and assistance for e-marketing activities, etc. It has equally made tourists co-creators of tourism products and not consumers only. It has continued to provide timely and accurate information necessary for planning trips, enabled tourists to share information with multimedia contents and tourists' experiences on destinations through social networks, mobile applications; and book and pay for tourism services or package arrangements in advance etc. (Buhalis, 1998; Štetić & Šimičević, 2014; Neuhofer, 2014). ICTs have led a simplified process of information retrieval, travel planning and purchase; online search for products and online payments; quick and easy comparison of product and services' prices online; a number of discounts to individual customers and upgrades to basic services (Pease & Rowe, 2005; Christou & Nella, 2012). Therefore, an avalanche of literature (such as Ali & Frew, 2014; Alitany, Redondo, Fonseca & Sanchez Riera, 2013; Baggio & Del Chiappa, 2014; Balandin & Laizane, 2013; Beirman, Ritchie & Campiranon, 2014; Sigala, 2014 among others) affirm that ICTs have a significant positive impact or influence on tourism and its management across cultures, developments, and civilizations.

IV. TOURISM IN NIGERIA

The history of tourism in Nigeria dates back to the origin of Nigeria itself. The country is a product of European search for raw materials for their industries and markets for their products in the 1800s. In essence, tourism begets Nigeria. However, the modern history of tourism in Nigeria began in 1960 when it got independent and began to attract non-British tourists in their numbers and for different purposes outside oil/petroleum. In 1962, the Nigeria Tourist Association (NTA) was formed to manage tourism and assist in the formulation of public policies on tourism. This organ of tourism management was transformed to Nigeria Tourism Development Corporation (NTDC) in December 1992 by decree 81. The Decree mandated all the 36 states and Abuja – the Federal Capital territory to form Tourism Board and Tourism committee at Local Government level. This was affirmed democratically in 2004 by the Act of the parliament and its amendments in the National Assembly.

Tourism in Nigeria is largely driven by annual and cultural events and natural attractions like rain forests, savannah, waterfalls, etc. (Archibong, 2004). These attractions are spread across the thirty six states of Nigeria and the federal capital territory – Abuja. Example of these tourists attractions include among others Millennium Park–Abuja, Lifecamp Gwarimpa – Abuja, the Eyo carnival - a yearly festival in Ogun State, Festac Food Fair – a yearly festival in Festac town Lagos, Black Heritage Carnival - Lagos Carnival, Sandy beaches off Atlantic Ocean such as Elegushi Beach, Inagbe Grand Beach Resort and Alpha Beach– Lagos, Five star hotels (like Eko Hotels and Suites, Federal Palace Hotel, Sheraton, Intercontinental Hotel), Parks like the Nike Art Gallery, Freedom Park, Obudu Mountain Resort in Cross River State, Obudu Cattle Ranch, Idanre Hills in Ondo, Kajuru Castle in Kachia Road– Kaduna, Gurara Waterfalls and Zuma Rock all in Niger state, Olumo Rock in Abeokuta – Ogun, Erin Ijesha Waterfalls in Osun state, Oguta Lake in Imo state, Farin Ruwa Falls in Nasarawa state, Yankari National Park in Bauchi state, and Ogbunike Caves in Anambra state etc.

Prior to computerisation and internet based operations, the management of tourism in Nigeria was completely analogue in nature. Travel agents were major promoters and facilitators of tourist activities, booking hotels and airline tickets after identifying customer's requirements or needs. The process was time consuming, unsatisfactory, and very expensive too (Bennett, 2006; Heintzeman, 1994). However, with the computerisation and introduction of internet based operations, enterprises and prospective tourists began to manage the process without using the travel agents. Such services like airline booking, hotel reservations, tourism product and services, searching, booking/payment and processing of travels that were earlier carried out by agents are done by punching computer buttons (Knowles and Garland, 1994). This time around, the exercise is faster, more satisfactorily, and cheaper too. Virtually all the tourist destinations in Nigeria created websites that enhance communication and e-marketing with any potential visitor. For example: Brand-based (www.ramamda.com); Holiday in worldwide (www.holiday-inn.com), Choice hotels (www.hotelchoice.com), Marriott international (www.marriott.com), ITT Sheraton corp (www.ITTSheraton.com), Hilton hotel corp (www.hilton.com), Hyatt hotels (www.hyatt.com), etc.

V. CHALLENGES OF ICT DRIVEN TOURISM IN NIGERIA

The literature identifies several key barriers of ICT use and influence in the tourism industry as security concerns, seasonality, cost, lack of ICT applications for tourism enterprises, lack of capital, multiple taxation from the Federal, State and Local government, maintenance of hardware and software, lack of support of owner/manager and organisational readiness, personal background of owner/manager of tourism enterprises, lack of skills and internal expertise, lack of training and fear of technology (Ashikodi, 2012; Sule, 2010; Kayode, 2010; Dambanza, 2007; Federal Ministry of Information, 1999). Minghetti and Buhalis (2010) identified a multiplicity of technological divides, which has led to different levels of digital exclusion from the benefits of technological innovation as one of the problems confronting ICT as a management tool in tourism industry. In addition, many tourist enterprises in Africa generally and Nigeria particularly lack sufficient or good access and connectivity to the internet (Ferreira, Kostakos, Beresford, Lindqvist & Dey, 2015; Pucciarelli, Vannini, and Cantoni, 2014; Gupta et al., 2014). In addition, Standing and Vasudavan (2000) and Poon (2000) identified lack of staff expertise, operating costs and the difficulty of providing adequate training as some of the most important barriers to e-tourism in Nigeria. Thus, they have difficulties realizing the benefits of internet technology in the management of tourism. Therefore, many tourist destinations normally employ the instrumentality of printed material and oral campaign for the promotion of their destination sites and products. This method is inferior to ICT driven methods and cover a highly limited area in terms of information dissemination (Dasgupta, 2011:209).

It is generally accepted that efficient telecommunication network with high speed internet services structures the growth and development of the tourism industry because of the opportunity it provides for the distribution of their products and services directly to consumers (Dollin, Burgess, & Cooper, 2002; Kotler, Bowen, & Makens 2006). However, its current inefficient nature in most part of suburban cities and their surroundings has negatively affected e-marketing in the tourism businesses. Poor network services being experienced does not allow people outside their environment to access information concerning the

enterprises neither does it allow the managers themselves to interact both with their counterparts and potentials customers outside. This has been attributed to unfriendly topographies, lack of ICT facilities, poor maintenance of existing facilities, lack of skilled ICT staff, and total lack of network services and prevalence of low bandwidth connection to the Internet (Lamsfus, Alzua, Martin, & Smithers, 2011). This affirms El-Gohary (2012) observation with regards to Egypt that they hinder the development and growth of tourism.

The type of competition among tourism industries or destination in Nigeria is exclusive. There is no network relationship between them where collective marketing of goods and services to local and international tourists thrives. They do not share knowledge and capabilities in order to become more efficient as a networked community (Go & Williams, 1993) as practiced in many other countries of the West (Waayers, Lee, & Newsome, 2012). According to a study conducted by Jaafar, Abdul-Aziz, Maideen, and Mohd (2011) in 104 rural tourism entrepreneurs, lack of access to finance and the methods of marketing prevailing in the current digital era are major constraints to the growth of their enterprises. This finding collaborated earlier observations made by Lee, Reynolds, and Kennon (2003) to the effect that poor financial ability and lack of access to it constitutes major problems to small and medium tourism enterprises. In addition to these factors, Ndabeni & Rogerson (2005) identified lack of support from local governments as another problem confronting micro and small business entrepreneurs. Even when ICT facilities are provided for micro and small businesses through interventions, they experience the low speed access or low bandwidth connection to the Internet via modems because of financial inability to upgrade (UNWTO, 2011). Other Third world countries like Malaysia and Ecuador share the same experience (Karanasios & Burgess, 2008). Therefore, the financial cost and time spent on setting up and maintaining the ICTs facilities are major impediments to the growth of tourism entrepreneurs in Nigeria (Heung, 2003). Complementing the above hindrances is the rapid depreciation of the Naira and the associated unprecedented rising inflation and external debts profile of the country. This has reduced Nigeria's purchasing power in the international market with greater part of its budget allocated to debt servicing. This has being complemented by unparalleled corruption and mismanagement of public funds, which made it impossible for the country to purchase and install requisite ICTs for public use.

VI. Conclusion

The movement of people outside their locality is inevitable in the current highly interdependent and interconnected world of our time. The need to secure markets, raw materials, commodities, services, better educational training, and leisure and to participate in international activities and holidays among others is not abating. Technological innovations and revolution in the communication industry positively changed the nature and dynamics of this sector due to the introduction of computer and the Internet technologies in tourism management. The literature dominantly attests to ICTs significant positive influence and contribution to the growth and development of the industry. However, many factors, as revealed by the literature tend to hinder the positive influence of ICT on the development of Nigeria tourism sector. These factors include among others insecurity, cost of ICT facilities and their maintenance, lack of ICT applications for tourism enterprises, lack of capital, lack of access to finance, methods of marketing prevailing in the current digital era, multiple taxation, lack of or poor network connection, low bandwidth, lack of ICTs skills and internal expertise, and

lack of training etc. The prospect for the development of Nigeria tourism industry lay with evolution of appropriate ICT and funding policies for the sector;government procurement of requisite ICT facilities and provision of strong network connection;provision ofaccessible funding schemes, and compulsory ICT training among others will alleviate the current problems hindering the growth of the industry in Nigeria.

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